

Application No. 10/822,642

AMENDMENTS TO THE SPECIFICATION

In the Title

Please substitute the following amended title for the title as currently on record (deleted matter is shown by strikethrough and added matter is shown by underlining):

METHOD FOR FORMING OPTICAL FIBER PREFORMS

In the Specification

At page 28, lines 9-16, please replace the paragraph with the following.

For example, the production of silicon oxide submicron/nanoscale particles is described in copending and commonly assigned U.S. Patent Application Serial Number 09/085,514, now U.S. Patent 6,726,990 to Kumar et al., entitled "Silicon Oxide Particles," incorporated herein by reference. This patent application describes the production of amorphous SiO₂. The production of titanium oxide submicron/nanoscale particles and crystalline silicon dioxide submicron/nanoscale particles is described in U.S. Patent 6,387,531 to Bi et al., entitled "Metal (Silicon) Oxide/Carbon Composites," incorporated herein by reference. In particular, this application describes the production of anatase and rutile TiO₂.

At page 28, line 29 to page 29, line 8, please replace the paragraph with the following.

Furthermore, lithium manganese oxide submicron/nanoscale particles have been produced by laser pyrolysis along with or without subsequent heat processing, as described in copending and commonly assigned U.S. Patent Applications Serial No. 09/188,768, now U.S. Patent 6,607,706 to

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Kumar et al., entitled "Composite Metal Oxide Particles," and 09/334,203, now U.S. Patent 6,482,374 to Kumar et al., entitled "Reaction Methods for Producing Ternary Particles," and U.S. Patent 6,136,287 to Horne et al., entitled "Lithium Manganese Oxides and Batteries," all three of which are incorporated herein by reference. The production of lithium cobalt oxide, lithium nickel oxide, lithium cobalt nickel oxide, lithium titanium oxide and other lithium metal oxides is described in copending and commonly assigned U.S. Patent Application Serial Number 09/595,958, now U.S. Patent 6,749,648 to Kumar et al., entitled "Lithium Metal Oxides," incorporated herein by reference.

At page 31, lines 16-22, please replace the paragraph with the following.

The deposition of coatings of dielectric materials for chip capacitors is described in copending and commonly assigned U.S. Patent Application serial number 10/219,019, now U.S. Patent 6,917,511 to Bryan, entitled "Reactive Deposition For The Formation Of Chip Capacitors," incorporated herein by reference. Suitable dielectric materials include a majority of barium titanate (BaTiO_3), optionally mixed with other metal oxides. Other dielectric oxides suitable for incorporation into ceramic chip capacitors with appropriate dopant(s)/additive(s) comprise, for example, SrTiO_3 , CaTiO_3 , SrZrO_3 , CaZrO_3 , $\text{Nd}_2\text{O}_3\text{-}2\text{TiO}_3$, $\text{La}_2\text{O}_3\text{-}2\text{TiO}_2$, and the like, and any two or more thereof.

At page 32, line 29 to page 33, line 8, please replace the paragraph with the following.

The formation of a powder coating comprising boron and phosphorous doped amorphous silica (SiO_2) is described in copending and commonly assigned U.S. Patent application

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09/715,935 to Bi et al. entitled "Coating Formation By Reactive Deposition," incorporated herein by reference. The doped silica powder coating was consolidated into a glass layer. Rare earth metal and other dopants for amorphous particles and powder coatings as well as complex glass compositions for powder coatings, and in particular, erbium doped aluminum silicate and aluminum-lanthanum-silicate powder coatings and glasses, are described in copending and commonly assigned U.S. Patent Application Serial Number 10/099,597 to Horne et al., filed on March 15, 2002, now U.S. Patent 6,849,334 entitled "Optical Materials And Optical Devices," incorporated herein by reference.

At page 45, line 28 to page 46, line 17, please replace the paragraph with the following.

Reasonable lengths for reactant inlet 474 for the production of ceramic submicron/nanoscale particles, when used with an 1800 watt CO₂ laser, are in the range(s) from about 5 mm to about 1 meter. More specifically with respect to the reactant inlet, the inlet generally has an elongated dimension in the range(s) of at least about 0.5 inches (1.28 cm), in other embodiments in the range(s) of at least about 1.5 inches (3.85 cm), in other embodiments in the range(s) of at least about 2 inches (5.13 cm), in further embodiments in the range(s) of at least about 3 inches (7.69 cm), in further embodiments in the range(s) of at least about 5 inches (12.82 cm) and in additional embodiments in the range(s) from about 8 inches (20.51 cm) to about 200 inches (5.13 meters). A person of ordinary skill in the art will recognize that additional ranges of inlet lengths within these specific ranges are contemplated and are within the present disclosure. In addition, the inlet can be characterized by an aspect ratio that is the ratio of the length divided by the width. If the inlet is not rectangular, the aspect ratio can be evaluated using the longest dimension as the length and the width as the largest dimension perpendicular to the line segment along the length. In some

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embodiments, the aspect ratio is in the range(s) of at least about 5, in other embodiments in the range(s) of at least about 10 and in further embodiments, in the range(s) from about 50 to about 400. A person of ordinary skill in the art will recognize that additional ranges of aspect ratio within these explicit ranges of aspect ratio are contemplated and are within the present disclosure. Nozzle parameters for particle production by laser pyrolysis are described further in copending U.S. Patent application serial number 10/119,645 now U.S. Patent 6,919,054 to Gardner et al., entitled "Reactant Nozzles Within Flowing Reactors," incorporated herein by reference.